Amendments to the Specification

Please amend paragraph [0049] of the specification as follows:

Battery monitor ~~Monitor~~ 304 accepts a power supply/monitoring interface 303 from a UPS system using return through VMID (which is the battery return) (e.g., system 101). Interface 303 may be electrically similar to that of a conventional interface 1102 as shown in FIG. 11 as discussed above. More particularly, interface 303 is a 12V voltage and communication signal provided by the UPS system used to detect the presence and operating temperature of a battery module and other functions using VMID as return. In one embodiment, interface 303 allows the communication of information between battery module 301 and a UPS system with which battery module 301 is associated. Battery module 301 includes a communication circuit 305 that receives the 12V power signal, and is capable of receiving and transmitting data over the same interface. In one embodiment, both data is received and transmitted to the UPS system over a single wire interface--the same single wire interface that provides power to the battery monitor 304.

Please amend paragraph [0051] of the specification as follows:

Battery monitor ~~Monitor~~ 304 may include a connection to the mid-point of battery cell components 302. This mid-point may be the electric center of components 302, but it should be appreciated that other voltages can be monitored. This voltage signal is passed through a resistance R.sub.1 (item 313) to a transistor T.sub.1 (item 310). T.sub.1 is coupled to the power input of battery monitor 304 through resistor R.sub.2 (item 311). When power is removed to communication circuit 305, power is removed from T.sub.1, which opens, and therefore, there is no load on components 302 when battery module 301 does not receive power through interface 303. That is, when battery module 301 is removed from its associated UPS (e.g., during a storage period), no load is present on the battery from battery monitor 304.

Please amend paragraph [0057] of the specification as follows:

Battery module 301 may include a switch 315 used to disconnect the power from the UPS. Switch 315 includes a sense contact which is connected to battery monitor 304 and measured by the processor 309. R4 316 is connected to the output of the regulator 306 and functions as a pull-up resistor for the disconnect switch sense 315.

Please amend paragraph [0058] of the specification as follows:

The UPS system may, according to one embodiment of the present invention, include additional circuitry to communicate with the battery module (e.g., battery 201, 301). FIG. 4 shows a monitor ~~circuit~~ 406 capable of communicating with an improved battery, such as, for example, battery module 301 via battery monitor 304. In one embodiment of the present invention, monitor circuit communicates data by interrupting current to each battery in a pattern. In this manner, a monitor circuit (e.g., monitor 406) can use the same electrical interface as conventional batteries while being able to communicate information to/from improved batteries.

Please amend paragraph [0060] of the specification as follows:

As shown in FIG. 4, monitor 406 connects to each battery via a separate connection (interface 407A to N) each of which is used to receive and transmit information to/from each battery. Having a separate connection to each battery module 301 ~~304~~ allows isolation of faults between modules. As discussed above with reference to FIG. 3, the power supply/monitoring interface 303 is coupled the communication circuit 305 of each battery module 301. Such an interface 303 of each battery module (e.g., batteries 405) may be coupled to interface 407A to N. In one embodiment, interface 407(A) may be a single wire from each battery module.

Please amend paragraph [0063] of the specification as follows:

FIG. 5 shows an embodiment of a interface circuit 501 according to one embodiment of the invention. Interface circuit 501 is one possible implementation of monitor 406 ~~401~~, and interface circuit 501 includes a number of components. More particularly, interface circuit 501 includes, for each battery, a battery signal circuit (item 520A, for example) that conditions the output signal to the battery as well as conditioning the received response signals. Circuit 520A receives an input signal from the battery modules (e.g., interface 508) and in one embodiment, communicates information to the battery modules using the same interface. In another embodiment, data is communicated back and forth to/from the battery modules over a single wire.